

Abstract

Several electroactive polymer (EAP) actuated vascular assist devices are provided that can be readily implanted within the body of a patient without coming in direct blood contact. The devices are also readily repositioned and/or removed from contact with the internal vasculature or may even be turned OFF remotely. In addition, there is provided a method of fabrication and a method of implanting such devices. There are also provided methods for the augmentation of a body lumen through the use of hemodynamic signals such as pressure or ECG signals to synchronize EAP actuation in the vascular assist system.